### STUDY OF THE COMORBIDITY BETWEEN TRAMADOL USE DISORDER, ANXIETY DISORDERS AND OBSESSIVE COMPULSIVE DISORDER

Tarek Kamal Molokhia, Heba Essam Abou-El-wafa, Ahmed Mohamed Ahmed Abdelkarim, Yomna Salah Eldin Abdelrazik Eldokany Department of Neuropsychiatry, Faculty of Medicine, University of Alexandria.

# INTRODUCTION

The number of drug dependents/users across the world has risen, Tramadol abuse has dramatically increased in the Middle East region, especially in Egypt, it acts as a central analgesic that works as a weak  $\mu$ -opioid agonist, norepinephrine and serotonin reuptake inhibitor, a lot of studies had investigated the anxiolytic and antidepressant effect of mu-opioid receptor agonists mean while anxiety disorders and obsessive compulsive disorder constitute the largest group of psychiatric disorders, arising from dysregulation of brain circuits and neurotransmitters including serotonin and norepinephrine and According to multiple studies there have been correlation between anxiety disorders, obsessive compulsive disorder and substance use disorders.

# AIM OF THE WORK

The aim of this study was to evaluate the comorbidity of different anxiety disorders and obsessive-compulsive disorder among patients with tramadol use disorder and dependence visiting to different health care facilities in Alexandria including El-Hadara university Hospital, Mamoura hospital and different private hospitals.

# SUBJECTS AND METHODS

#### Subjects:

The study was carried out among 150 patients with tramadol use disorder (confirmed by a multiple drug screening test) with exclusion of patients with active intake of other substances particularly cannabis and stimulant drugs, patients with past history of schizophrenia or bipolar disorder and patients with withdrawal or intoxication symptoms.

### **Methods:**

Each patient was subjected to assessment of socio-demographic data, point and life time prevalence of any type of anxiety disorders and obsessive compulsive disorder and assessment of current disorder severity using Arabic version of Beck Anxiety Inventory (BAI) for anxiety disorders.

### RESULTS

90 % of the studied sample were males, with a mean age 32.82 with 7.11 SD, 60 % were married, 54 % had family history of substance intake, 56.7% had low score in Fahmi and Elsherbini scoring system for socioeconomic status, 78 % of the studied sample had no stressful events at onset of intake and 92 % were tobacco smokers.

**Table 1:** Clinical characteristics of tramadol users in the studied sample (n = 150)

	Min. – Max.	Mean ± SD.	Median (IQR)
Duration of intake (years)	0.25 - 25.0	$9.43 \pm 6.31$	8.50 (4.0 – 13.0)
Treatment attempts	1.0 - 9.0	$3.25 \pm 1.89$	3.0 (2.0 – 4.0)

**Table 2:** Distribution of the studied sample according to point and life time prevalence of anxiety disorders and obsessive compulsive disorder (n = 150)

	No.	%
Life time prevalence of Anxiety disorders	48	32.0
point prevalence of Anxiety disorders	16	10.7
Life time prevalence of Obsessive compulsive disorder	1	0.7

No current cases were reported for obsessive compulsive disorder.

**Table 3:** Distribution of the studied sample according to the severity of the current anxiety disorders according to Beck anxiety inventory (n=16)

Severity of the current illness	No.	%
Low	6	37.5
Moderate	8	50.0
Very high	2	12.5

There was a significant difference (p value <0.05) between those with dual diagnosis and those with only tramadol use disorder regarding the gender as 43.8 % of those with dual diagnosis was females in contrast to those without dual diagnosis as females were 6 % only, for the age group as the mean age for those with dual diagnosis was  $27.13 \pm 6.29$  and for those with tramadol use disorder without anxiety disorders was  $33.50 \pm 6.91$  and regarding the marital status, it was found to be statistically significant as 37.5% of patients with dual diagnosis were married while 62.7 of patient with tramadol use disorder without anxiety disorders were married mean while regarding the family history, socioeconomic status, stressful event at onset of intake, smoking and clinical characteristics of the studied sample there was no statistically significant difference between the two groups.

# **CONCLUSION**

- patients with dual diagnosis (tramadol use disorder and anxiety disorders) have lower prevalence of anxiety disorders in comparison with anxiety disorders rate among substance use disorder patients and incomparison with prevalence of anxiety disorders among the general population during the lock down period, taking in consideration the gender difference, affected age group, and marital status.
- This prevalence can raise the possibility of the anxiolytic effect of being self- medicated by tramadol however this needs to be confirmed by future studies



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